



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,068	07/31/2003	Yen-Fu Chen	AUS920030521US1	3486
45371 7590 01/03/2007 IBM CORPORATION (RUS) c/o Rudolf O Siegesmund Gordon & Rees, LLP 2100 Ross Avenue Suite 2600 DALLAS, TX 75201			EXAMINER CRABTREE, JOSHUA DAVID	
			ART UNIT 3714	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/03/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/631,068

Applicant(s)

CHEN ET AL.

Examiner

Joshua D. Crabtree

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4-6,8-15,17-19,21-27,30,32-34 and 36-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-6, 8-15, 17-19, 21-27, 30, 32-34, and 36-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Response to Amendment***

1. In response to the amendment dated 08/30/2006; claims 2, 3, 7, 16, 20, 28, 29, 31, 35 cancelled; claims 1, 4-6, 8-15, 17-19, 21-27, 30, 32-34, and 36-41 pending.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 1, 4-6, 8-15, 17-19, 21-27, 30, 32-34, and 36-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**  
Specifically, claims 1, 14, and 27 recite using a conversion table and a dictionary to make a determination whether or not an answer is correct. However, the claim does not explain how this is accomplished. It is unclear exactly how a conversion table and dictionary are used to determine if an answer is correct, as claimed. Therefore, the claims are rendered vague and indefinite. Claims 4-6, 8-13; 15, 17-19, 21-26; and 30, 32-34, 36-41 depend from claims 1, 14, and 27, respectively, and therefore inherent this deficiency.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4-6, 8-15, 17-19, 21-27, 30, 32-34, and 36-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parry et al. (US 6,077,085) in view of Crawford et al. (US 6,438,515).

Parry et al. disclose a technology-assisted learning system in which students of various native languages may learn a target language (Col. 2: 44-61).

With regard to claims 1, 14, and 27, and the limitation of using a computer and graphical user interface on a display connected to the computer, Parry et al. disclose this feature (Col. 5: 60 - Col. 6: 18).

With regard to the limitation of allowing a user to select a Chinese-English textbook chapter from a plurality of chapters, Parry et al. disclose that a user may choose a topic, from a menu, such as Grammar, Vocabulary, or Phrases. Each topic may be further divided into additional menu choices (Col. 20: 30-57). Parry et al. disclose that the system may be used to teach any language for which a database has been configured (Col. 10: 63-67). The invention of Parry et al. would therefore inherently be capable of being used to teach Chinese, or any other language as desired by a user.

With regard to claims 1 and 15, and the feature of allowing a user to select a question language and an answer language from a plurality of question languages and answer languages, respectively, Parry et al. disclose that a user's primary language and a target foreign language may be selected (Col. 2: 50-53; Col. 10: 50-67). Thus, questions could be presented in the user's native language, and the user could provide answers in the target foreign language.

With regard to the limitation of displaying a plurality of vocabulary words from a selected chapter, Parry et al. disclose that vocabulary words are presented to a user (Col. 13: 13-21).

With regard to the limitation of displaying a question containing a vocabulary word in the question language, receiving an answer from the user in the answer language, and determining if the answer is correct, Parry et al. disclose presenting a native language word to the student, and prompting the student to type the target language translation (Col. 13: 32-34). Additionally, Parry et al. disclose other forms of questioning with regard to vocabulary review (Col. 11: 9 – Col. 14: 6).

With regard to the feature wherein the determination if the answer is correct is performed using a Simplified Chinese/Traditional Chinese conversion table encoded in Unicode, Parry et al. disclose that two different languages (such as the native language of a student, and the target foreign language to be learned) may be used, as previously described. Parry et al. disclose translating (i.e., converting) a phrase into a student's native language, in order to ask the student a question (Col. 13: 57-62).

With regard to determining if an answer is correct using a traditional Chinese/Pin Yin/English dictionary encoded in Unicode, Parry et al. disclose that the content to be learned is stored in databases, which include Word tables, Phrase tables, etc. (Col. 6: 20-58). Additionally, Parry et al. disclose providing a student with a definition of a word, and prompting the student for the word (Col. 3: 59-64). Thus, without using the specific word "dictionary", Parry et al. nevertheless disclose that words, along with their definitions (i.e., dictionary), are used in the invention. The invention is inherently capable of being used to teach Chinese, Pin Yin, English, or any other language as desired by a user.

Parry et al. do not explicitly disclose using Unicode as the data format for the words in the invention. Crawford et al. teach a language instruction system which employs the Unicode format, which enables a computer memory to store all of the world's alphabets (Col. 12: 45-65). It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teaching of Crawford et al. into the invention of Parry et al. in order to provide a language instructional system capable of storing all of the world's alphabets, by using the Unicode format.

With regard to claims 4, 17, 30, and 32, and the limitation of displaying statistics regarding the user's performance in answering a plurality of questions, Parry et al. disclose that reports can be generated which may include statistics regarding grades, and amount of time spent on test portions (Col. 26: 16 - Col. 27: 15).

With regard to claims 5-6, 18-19, 33-34, and the limitation of calculating the probability factors for the plurality of vocabulary words, wherein the probability factors determine the probability that a vocabulary word will appear in a question (as in claims 5, 18, 33) or asked in a question (as in claims 6, 19, and 34), Parry et al. disclose that the frequency with which a concept (such as a vocabulary word) is presented to a student will vary according to the student's mastery level (Col. 3: 12-16). Thus, if a student has demonstrated mastery of certain words, those words will have a lower probability of being presented to the student again.

With regard to claims 8-9, 21-22, and 36-37, and the limitations wherein responsive to determination that an answer is correct, decrementing a probability factor for the vocabulary word (claims 8, 21, and 36), and wherein responsive to determination that an answer is incorrect, incrementing a probability factor for the vocabulary word (claims 9, 22, and 37), Parry et al. disclose varying the frequency with which concepts (such as vocabulary words) are presented to a student inversely in proportion to the student's mastery level, as previously described. Therefore, if a student gets an answer right, the student's mastery level increases, and the probability of seeing the concept again is reduced (i.e., decrement the probability that the concept is presented again, because a student has answered correctly). Conversely, if a student gets an answer wrong, then the student's mastery level has decreased, and the concept is more likely to be presented again.

With regard to claims 10, 23, and 38, and the limitation wherein responsive to a determination that all of the vocabulary words have a probability factor equal to one, indicating that the chapter is completed, Parry et al. disclose that when all of the vocabulary items have moved out of the review pool (and thus have no probability of being encountered any more) and into the test pool, the chapter is completed (Col. 19: 51-55).

With regard to claims 11, 24, and 39, and the limitation of changing the font size of Chinese characters displayed on a graphical user interface, Parry et al. disclose that a typical computer hardware system, with any one or more of numerous operating systems may be used for implementing the invention (Col. 5: 60 - Col. 6: 17). A typical operating system (such as MICROSOFT WINDOWS®, for example) would inherently include the feature wherein font size may be changed. The invention can be used to teach any language, as desired by a user, and would thus inherently include the feature of displaying characters in Chinese, English, or any other language.

With regard to claims 12-13, 25-26, and 40-41, and the limitation wherein the question language (as in claim 12, 25, and 40), and answer language (as in claims 13, 26, and 41), is Traditional Chinese, Simplified Chinese, Pin Yin, or English, the invention of Parry et al. includes the feature wherein a target foreign language may be taught to a plurality of users, each of whom may speak different native languages (Col. 2: 44-61). Therefore, any language, including those recited in the claims, may be used in the invention of Parry et al.



*Response to Arguments*

4. Applicant's arguments with respect to claims 1, 4-6, 8-15, 17-19, 21-27, 30, 32-34, and 36-41 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

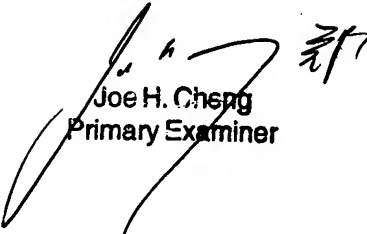
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Crabtree whose telephone number is 571-272-8962. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert P. Olszewski can be reached on (571) 272-6788. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

36  
Joshua D. Crabtree  
December 12, 2006

  
Joe H. Cheng  
Primary Examiner